

**REMARKS:**

Claims 1-8 and 10 are pending in the application. Claims 1-8 and 10 currently stand rejected.

**REMARKS REGARDING CLAIMS AMENDMENTS:**

Claims 1, 3, 4, 5, 7 and 8 have been amended; no new matter has been added. Applicant requests reconsideration and allowance in view of the amendments and following remarks. Support for amendments to claim 1 are found in p.4, ll. 1-5 and p.1, ll. 28-37. Support for the amendment to claim 7 is found in paragraph p.4, ll. 1-5. Claims 3, 4, 5 and 8 have been amended for reasons of clarity.

**REJECTIONS UNDER 35 U.S.C. § 112:**

Claims 1, 4 and 5 stand rejected under 35 U.S.C. § 112 ¶2 as being allegedly indefinite. Applicant has amended claims 1, 4 and 5. Specifically, claim 1 has been amended to recite “from 50 to 180 °C” and claims 4 and 5 have been amended to provide an antecedent basis. Applicant respectfully assert that claims 1, 4 and 5 are in full compliance with 35 U.S.C. § 112, and respectfully requests the rejection of claims 1, 4 and 5 be withdrawn.

**REJECTIONS UNDER 35 U.S.C. § 102(b):**

Claims 8 and 10 are rejected as allegedly anticipated by **Amatucci**, US 2002/0102205 (hereinafter “**Amatucci**”). Applicant respectfully traverses the rejection. Applicant has amended claims 1 and 8 to reflect a smaller nanocrystalline lithium titanate spinel particle size.

**Amatucci** discloses a process for synthesizing  $\text{Li}_4\text{Ti}_5\text{O}_{12}$  having an average primary particle size of less than 100 nm. *See Amatucci*, ¶ 8. While **Amatucci** discloses an average particle size of less than 100 nm, **Amatucci**’s smallest disclosed average particle size is 40 nm. *See Amatucci*, ¶ 28. According to MPEP 2131.03(II) “In order to anticipate the claims, the claimed subject matter must be disclosed in the reference with ‘sufficient specificity to constitute an anticipation under the statute.’” *See, e.g., Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 999, 78 USPQ2d 1417, 1423 (Fed. Cir. 2006). Applicant respectfully asserts wherein

**Amatucci's** smallest disclosed average particle size is 40 nm, Applicant's claimed range is not disclosed with sufficient specificity to constitute anticipation under the statute.

In view Applicant's amendments and remarks, Applicant respectfully request that the rejection under 35 U.S.C. § 102(b) of claims 8 and 10 be withdrawn.

**REJECTIONS UNDER 35 U.S.C. § 103(a):**

Claims 1-8 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over **Kavan et al.** (ECS, 2002, 5(2) A39-A42) (hereinafter "**Kavan**") in view of either **Bruno et al.** (US 5,242,674; hereinafter "**Bruno**") or **Idota** (US 5,571,637; hereinafter "**Idota**"). Applicant respectfully traverses the rejection. Applicant has amended claims 1 and 8 to reflect a smaller nanocrystalline lithium titanate spinel particle size.

"To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations." MPEP 2143; *see In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

**Kavan** discloses a nanocrystalline  $\text{Li}_4\text{Ti}_5\text{O}_{12}$  spinel that was prepared via a sol-gel route employing lithium ethoxide and Ti(IV) alkoxides as the starting reagents. **Kavan** also discloses that a particle size ( $d_p$ ) was estimated from the BET area, and under the assumption of spherical particles, the particle size was "approximated" at 9 nm. Applicants respectfully assert that the methods for identification of the crystal sizes by X-ray reflection and by BET area, as shown by **Kavan**, are indirect and subject to large errors. Therefore, **Kavan** does not teach the claimed range of 1-10 nm as seen in claim 1. Furthermore, even if Applicants agreed that the particle size approximation of **Kavan** was accurate, which Applicants do not, Claim 7 as amended recites a particle size of 2-8 nm.

With respect to the secondary references of **Bruno** and **Idota**, neither reference discloses the claimed ranges, and therefore, in combination with **Kavan** do not teach all the current claim limitations.

In view Applicant's amendments and remarks, Applicant respectfully asserts that claims 1-8 and 10 are not obvious, and respectfully requests that the Examiner withdraw the rejections under 35 U.S.C. § 103(a).

**DOUBLE PATENTING:**

Claims 1-3 and 7 are provisionally rejected on the grounds of non-statutory obvious-type double patenting as being unpatentable over claims 1, 3 and 6-9 of co-pending Application No. 10/847,620. Pending client documentation a terminal disclaimer will be filed with respect to claims 1-3 and 7.

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The undersigned representative requests any extension of time that may be deemed necessary to further the prosecution of this application.

The undersigned representative authorizes the Commissioner to charge any additional fees under 37 C.F.R. 1.16 or 1.17 that may be required, or credit any overpayment, to Deposit Account No. 14-1437, referencing Attorney Docket No.: PF 0000054487/RS.

In order to facilitate the resolution of any issues or questions presented by this paper, the Examiner may directly contact the undersigned by phone to further the discussion.

Respectfully submitted,

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